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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/687,643      | 10/20/2003  | Tetsuya Mino         | 100186-00020        | 8971             |

7590 08/31/2006  
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EXAMINER

KIM, PAUL D

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3729

DATE MAILED: 08/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|  |                                      |                                      |  |
|--|--------------------------------------|--------------------------------------|--|
| <p align="center"><b>Advisory Action</b><br/><b>Before the Filing of an Appeal Brief</b></p> | <b>Application No.</b><br>10/687,643 | <b>Applicant(s)</b><br>MINO, TETSUYA |  |
|  | <b>Examiner</b><br>Paul D. Kim       | <b>Art Unit</b><br>3729              |  |

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 16 August 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
 b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b) ☐ They raise the issue of new matter (see NOTE below);  
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

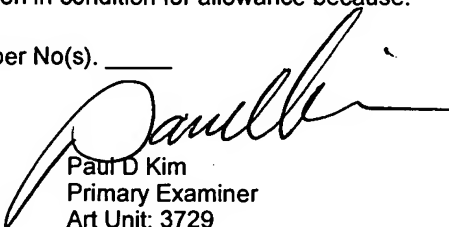
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
 5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
 The status of the claim(s) is (or will be) as follows:  
 Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: 1-4.  
 Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
 13. ☐ Other: \_\_\_\_\_.

  
 Paul D Kim  
 Primary Examiner  
 Art Unit: 3729

Continuation of 11. does NOT place the application in condition for allowance because: Applicant argues that the prior art of record fails to show the etching rate of the non-magnetic layer, which is equal or higher than the magnetic material. Examiner traverses the argument. According to Figs. 13 and 16 of Cole, the track width (W) is formed by etching the first and second poles and a gap layer between the pole layers. If the gap layer has the etching rate higher than the pole layers, then the track width is not going to be the same with the pole layers. Therefore, the etching rate of the gap layer has an etching rate at least the same with the pole layers. However, Cole silent what material is used for the pole layers and the gap layer. The non-magnetic insulating layer located in between the pole tip layers of Katz is made of silicon oxide, which could have the etching rate at least equal or higher than the magnetic material. In addition to that the track width of the pole tip layers with the non-magnetic insulating layer of Katz as shown in Fig. 1 is the same. There is no evidence that the track width is increased or decreased or has a side fringe. Therefore, the etching of the non-magnetic insulating layer of Katz could have the etching rate at least equal with the magnetic material of the pole tips. Therefore, it would be obvious to modify the gap layer of Cole et al. by non-magnetic insulating layer made of silicon dioxide as taught by Katz in order to have a desired uniform track width. Applicant also argues that the first and second magnetic layers are not a matter of design choice. Examiner traverses the argument. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use the magnetic material with the non-magnetic insulating layer formed between the magnetic layers as recited in the claimed invention in order to produce a desired uniform track width. If one uses the higher etching rate non-magnetic insulating material, the desired uniform track width can not be formed. Also, if one uses the higher etching rate magnetic material than the non-magnetic insulating material, the desired uniform track width can not be formed. There is no specific combination in etching rate between the magnetic material and the non-magnetic insulating layer in the claimed invention. Therefore, examiner maintains his position for rejecting the claims 1-4. It appears that the applicants' arguments are not persuasive in overcoming the prior rejections..